PRELIMINARY ENVIRONMENTAL ASSESSMENT

DOI-BLM-NV-W030-2013-0014-EA

ROUGH CANYON DRIFT FENCE IN THE PAIUTE MEADOWS ALLOTMENT

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Prepared by:

U.S. Bureau of Land Management
Winnemucca District Office
Black Rock Field Office
5100 E. Winnemucca Blvd.
Winnemucca NV 89445-2921

BLM

Winnemucca District Office / Nevada

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PRELIMINARY ENVIRONMENTAL ASSESSMENT OF THE PROPOSED ROUGH CANYON DRIFT FENCE IN THE PAIUTE MEADOWS ALLOTMENT DOI-BLM-NV-W030-2013-0014-EA

1.0 INTRODUCTION

The Paiute Meadows Allotment (PMA) is approximately 40 air miles southwest of Denio, Nevada and encompasses the east side of the Black Rock Range. The allotment boundary extends from the higher elevations in the Black Rock Range to the east arm of the Black Rock Desert.

1.2 Purpose and Need

The purpose of the proposed action is to provide an effective means of keeping livestock out of the North Paiute High Elevation area during specific times of the year as defined in the Paiute Meadows Final Multiple Use Decision (FMUD), 2003. The need for action is established by the Bureau of Land Managements (BLM) responsibility under its Grazing Administration Regulations (43CFR Part 4100) to ensure that the designed grazing system is followed and effective.

1.3 Regulatory Authorities

The proposals presented in this EA would be implemented subject to the following regulatory authorities:

- Taylor Grazing Act of 1934 as amended and supplemented,
- Federal Land Policy and Management Act of 1976 (FLPMA),
- Public Rangelands Improvement Act of 1978 and,
- 43 CFR Part 4100 et al – Grazing Administration
- Noxious Weed Act of 1974

1.4 Land Use Plan Conformance

This action is in conformance with both the Sonoma-Gerlach and Paradise-Denio Final Grazing Environmental Impact Statements and Sonoma-Gerlach and Paradise-Denio Management Framework Plans (MFP) Record of Decision (ROD), 1982. The ROD identified grazing as an appropriate use of the public lands within these allotments.

The proposal is consistent with the following MFP decisions:

Long term objective of grazing management program is to manage, maintain, and improve the rangeland conditions on the public lands. (RM 1.11)

1.5 Relationship to Laws, Regulations, and other Plans

The Proposed Action and No Action alternative are in conformance with the short and long term multiple use management objectives for the Paiute Meadows Allotment as specified in the Final Multiple Use Decision (FMUD) dated October 15, 2003.

The proposed action also conforms to the recommendations presented in the Standards and Guidelines for Rangeland Health for Nevada's Sierra Front-Northwestern Great Basin Area as developed in consultation with the Sierra Front-Northwestern Great Basin Resource Advisory Council, other interested publics and approved by the Secretary of the Interior on February 12, 1997. Grazing practices and activities subject to the standards and guidelines include the development of grazing related portions of activity plans, establishment of terms and conditions of the permits, leases and other grazing authorizations, range improvement activities, such as vegetation manipulation, fence construction and the development of water. These actions must be in conformance with these approved Standards:

a. Soil processes will be appropriate to soil types, climate and land form.

b. Riparian/wetland systems are in properly functioning condition.

c. Water quality criteria in Nevada or California State Law shall be achieved or maintained.
(California State Law only applies to that portion of the Sierra Front-Northwestern Great Basin Area that lies within the State of California)

d. Populations and communities of native plant species and habitats for native animal species are healthy, productive and diverse.

e. Habitat conditions meet the life cycle requirements of special status species.

These Standards and Guidelines reflect the stated goals of maintaining or improving rangeland health while providing for the viability of the livestock industry in the Sierra Front – Northwestern Great Basin Resource Area.

1.6 Potential Issues

Based on input from the BLM Interdisciplinary Team, the following concerns relative to the proposed action have been identified:

- Invasive, non-native plant species could be established as a result of disturbances associated with the construction of the proposed fence.
- What type of impacts will fence construction at this site have upon Greater sage-grouse, bighorn sheep, and mule deer?

2.0 THE PROPOSED ACTION AND ALTERNATIVES

2.1 The Proposed Action

The proposed action is to build approximately 1.07 miles of new permanent fence. The fence would be located in T 41N, R 27E, section 14. (Refer to Section 11.0 for map of proposed fence location). The site would be accessed by existing roads.

The proposed fence would reduce livestock drift from the North Paiute Low Elevation use area into North Paiute High Elevation use area during the hot season, which is also the season of non-use (7/1 to 10/6). The fence would limit livestock access through Rough Canyon and the subsequent drift of cattle along Battle Creek and Bartlett Creek. The North Fork of Battle Creek is occupied habitat for the federally listed threatened species, Lahontan cutthroat trout (LCT).

The Paiute Meadows Allotment permittee, Paiute Meadows Grazing Association, LLC, has proposed to maintain the proposed drift fence. A cooperative agreement would be issued to the permittee prior to the construction of the fence.

2.2 Proposed Environmental Protection Measures

1. The fence would be constructed to the bureau's antelope specifications to prevent potential impacts to pronghorn and mule deer.

    - Four wires with the bottom wire smooth and 16 inches above the ground.
    - The top wire would be 42 inches above the ground.

2. Approximately three gates would be installed to allow for wildlife, wild horse, and livestock movement.

3. The fence is located within the Black Rock Sage-grouse Population Management Unit (PMU). As such diverters would be placed on the fence to prevent potential impacts to Sage-grouse.

    - 3" X 2" flight diverters would be placed on the top and third wire from the top of each fence section in a staggered pattern.
    - On the top wire, the first marker would be placed 2 feet from the post, with 4 foot spacing for each subsequent marker. For example, for a distance between fence posts of 12 feet the arrangement would be: post -2 feet –marker; -4 feet -marker ;-4 feet –marker; -2 feet – post. For the third wire, the same spatial arrangement is used, except that the first diverter would be placed 4 feet from the post, thus staggering the markers.
    - The proposed fence would be constructed outside of Sage-grouse leking and nesting season (March 15th through June 30th).
    - When surface disturbance must be created during the migratory avian breeding season (March 1 – August 31), a survey performed by a BLM biologist, following BLM protocols would be conducted for active nests. This survey would be conducted no more than 10 days prior to and no less than 3 days prior to proposed disturbance activities. If active nests are located, a protective buffer, (the size of which would be depend upon the habitat requirement of the species, but no less than 260 feet) would be delineated and the entire buffer area avoided to prevent destruction or disturbance to the nest or reproductive behaviors until the nests are no longer active.

4. The fence is also located within crucial winter range for mule deer. To reduce disturbance to mule deer, activities that may disturb and displace mule deer would not be allowed during November 15 through April 30.

The PMA permittee, Paiute Meadows Grazing Association, LLC, has proposed to maintain the proposed drift fence. A cooperative agreement would be issued to the permittee prior to the construction of the fence.

2.3 Alternatives Considered But Eliminated

The initial proposed fence location was approximately ½ mile north of the current proposed fence location. The fence location was moved (to the current proposed project location) to avoid cultural resources located in this vicinity.

2.4 The No Action Alternative

Under this alternative livestock drift through Rough Canyon into the higher elevation areas would continue to occur.

3.0 THE AFFECTED ENVIRONMENT

The proposed project is located within the Rough Canyon Fence Cumulative Impact Assessment area boundary which totals 26,606 acres (see Map 5: Cumulative Assessment Area). Of which approximately 25,359 acres are public, and 1,246 acres are private lands. The Cumulative Impact Assessment area boundary lies on the northwestern edge of the Black Rock Desert. The Cumulative Impact Assessment area boundary was chosen based on the local watershed boundary GIS layers. The eastern portion of the boundary was stopped along the edge of Leonard Creek road as the area south and east of this is not relevant to the immediate project area and there would be no associated impacts within this area.

There are several creeks that flow through the assessment area boundary. North Fork of Battle Creek is occupied by Lahontan Cutthroat Trout (LCT). A variety of wildlife such as mule deer, bighorn sheep, antelope, pygmy rabbits, sage-grouse, and others thrive within the area. The assessment area falls within the Black Rock PMU boundary and portions of the area are within the Black Rock Range East Herd Management Area (HMA); however the proposed project lies outside of the HMA.

The terrain within the assessment area is varied and diverse extending from the Black Rock Desert playa to the upper reaches of the Black Rock Mountain Range. The vegetation within the assessment area includes vast stands of Wyoming Big sagebrush, Low Sagebrush, Salt Desert Shrub, Greasewood and Cheatgrass.

The southern portion of the assessment area lies within the Black Rock Desert Wilderness Area, and the northern portion of the assessment area lies within a Lahontan Cutthroat Trout Instant Study Area. The proposed action falls outside of both the Wilderness and Instant Study Area within the assessment area boundary.

Within the assessment area boundary there is one rural ranch. The ranch located within the assessment area is owned by the holder of the livestock grazing permit on the Paiute Meadows Allotment.

3.1 Supplemental Authorities (Formerly referred to as Critical Elements)

The following supplemental authorities of the human environment are present and may be affected by the proposed action and alternative are located below:

Table 1: Supplemental Authorities

Critical Element	***Present***		***Affected***		***Rationale***
	Yes	No	Yes	No	
Air Quality	Present			Not Affected	
ACEC's		Not Present		Not Affected	
Cultural Resources	Present			Not Affected	
Environmental Justice		Not Present		Not Affected	
Floodplains		Not Present		Not Affected	
Invasive, Non-native Species		Not Present	Affected		Invasive, Non-Native species are not present within the immediate project location. Potential for invasion does exist.
Migratory Birds	Present		Affected		
Native American Religious Concerns	Present			Not Affected	
Prime or Unique Farmlands		Not Present		Not Affected	
Threatened and Endangered Species	Present			Not Affected	See Section 3.1.5 for discussion on LCT. See Special Status Species Section for Greater sage-grouse information.
Wastes, Hazardous or Solid		Not Present		Not Affected	
Water Quality (Surface and Ground)		Not Present		Not Affected	
Wetlands and Riparian Zones		Not Present		Not Affected	There would be no direct impact to riparian areas; there could be indirect beneficial impacts to riparian areas, however these are not potentially significant and therefore will not be analyzed in this document.
Wild and Scenic Rivers		Not Present		Not Affected	
Wilderness		Not Present		Not Affected	

3.1.1 Cultural Resources

A Class III Cultural Resource Inventory was done on May 21, 2013; no sites were found.

3.1.2 Invasive, Nonnative Species

Several laws authorize control of noxious weeds on public land under the BLM's administrative jurisdiction (e.g., The Federal Insecticide, Fungicide and Rodenticide Act of 1972, Federal Noxious Weed Act of 1974, FLPMA (1976), and the Public Rangelands Improvement Act of 1978). Nevada Revised Statutes, Chapter 555.05 defines "noxious weeds" and mandates land owners and land management agencies to control noxious weeds on lands under their jurisdiction. Thirteen of these noxious weed species have been identified in the Winnemucca District (for a complete list of weed species, see Appendix I). There are no noxious or invasive, non-native species located within the immediate project area.

3.1.3 Migratory Birds and Raptors

"Migratory bird" means any bird listed in 50 CFR 10.13. All native birds commonly found in the United States, with the exception of native resident game birds, are protected under the Migratory Bird Treaty Act (MBTA) of 1918, as amended (16 U.S.C. 703 et seq.). The MBTA prohibits taking of migratory birds, their parts, nests, eggs, and nestlings without a permit. Executive Order 13186 signed January 10, 2001, directs federal agencies to protect migratory birds by integrating bird conservation principles, measures, and practices.

According to the Southwest Regional Gap Analysis Project (ReGap), the proposed fence location is located in Inter-mountain big sagebrush shrubland (S054), Inter-mountain semi-desert shrub steppe (S079), and Inter-mountain mixed salt desert scrub habitats (S065). Migratory birds associated with these vegetative habitats may include: black-throated sparrow (*Amphispiza bilineata*), Brewer's blackbird (*Euphagus cyanocephalus*), Brewer's sparrow (*Spizella breweri*), Western burrowing owl (*Athene cunicularia*), canyon wren (*Catherpes mexicanus*), gray flycatcher (*Empidonax wrightii*), green-tailed towhee (*Pipilo chlorurus*), loggerhead shrike (*Lanius ludovicianus*), rock wren (*Salpinctes obsoletus*), sage sparrow (*Amphispiza belli*), sage thrasher (*Oreoscoptes montanus*), western meadowlark (*Sturnella neglecta*), and vesper sparrow (*Pooecetes gramineus*) (Great Basin Bird Observatory, 2003). Most of these species require a diversity of plant structure and shrub under story. Good diversity provides sufficient habitat for nesting, foraging and cover.

The project area provides habitat and forage for raptors such as Red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), Cooper's hawk (*Accipter cooperii*), Swainson's hawk (*Buteo* swainsoni), ferruginous hawk (*Buteo regalis*), rough-legged hawk (*Buteo lagopus*), sharp-shinned hawk (*Accipiter striatus*), northern harrier (*Circus cyaneus*), osprey (*Pandion haliaetus*), barn owl (*Tyto alba*), long-eared owl (*Asio otus*), northern saw-whet owl (*Aegolius acadicus*), short-eared owl (*Asio flammeus*), western screech owl (*Otus kennicottii*), western burrowing owl (*Athene cunicularia*), merlin (*Falco columbarius*), and turkey vulture (*Carthartes aura*).

Of these, Swainson's hawk, Ferruginous hawk, Western burrowing owl, Loggerhead shrike, Brewer's sparrow, and Sage thrasher are special status species and are addressed in Section 3.2.3 Special Status Species.

3.1.4 Native American Religious Concerns

Numerous laws and regulations require consideration of Native American concerns. These include the National Historic Preservation Act of 1966 as Amended (NHPA), the American Indian Religious Freedom Act of 1978 (AIRFA) as amended, Executive Order 13007 (Indian

Sacred Sites), Executive Order 13175 (Consultation and Coordination with Tribal Governments), the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA), Secretarial Order 3317, the Archaeological Resources Protection Act of 1979 (ARPA) as well as NEPA and FLPMA.

Native Americans utilize a variety of plants for medicinal and other uses. LCT which are found in Battle Creek are also a resource valued by many Northern Paiute Bands. They also consider all water to be sacred.

Letters requesting consultation meetings were sent to the following tribes on May 17th, 2012: Fort McDermitt Paiute and Shoshone Tribe, and the Summit Lake Paiute Tribe. See section 4.1.4 for results of consultation.

3.1.5 Threatened and Endangered Species

BLM is required by the Endangered Species Act of 1973, as amended to ensure that no action on the public lands jeopardizes a threatened, endangered, or proposed species. A species list was requested from the United States Fish and Wildlife Service (USFWS) for the proposed project area, per their online version (2-05-13; http://ecos.fws.gov/ipac/). The Nevada USFWS responded on February 5, 2013 with an electronic version of an official species list. The species list showed the following listed, proposed and candidate species which may occur within the project area:

Lahontan cutthroat trout (*Oncorhynchus clarkii henshawi*) a threatened species,
Greater sage-grouse (*Centrocercus urophasianus*) a candidate species, and,
Whitebark pine (*Pinus albicaulis*) a candidate species.

Lahontan cutthroat trout

The Lahontan cutthroat trout (*Oncorhynchus clarki henshawi*, LCT) is a threatened species under the Endangered Species Act of 1973, as amended, and is the only listed fishery species known to occur in the vicinity of the Rough Canyon Fence project area. Streams within the Paiute Meadows Allotment that are closest to the project area include North Fork of Battle Creek and Bartlett Creek. LCT currently occupy within North Fork of Battle Creek. The North Fork of Battle Creek is approximately 4.2 miles from the project area.

In 1999 and 2000, LCT from Washburn Creek were introduced into the North Fork of Battle Creek by NDOW. NDOW has reported that LCT have increased in numbers since 1999, are occupying over 2 miles of stream, and multiple age classes have been observed.

Stream parameter data was collected by the Nevada Division of Wildlife (NDOW). NDOW uses the General Aquatic Wildlife Survey for analysis of this data and calculates a Habitat Condition Index (HCI) derived by using the six habitat parameters: pool measure, pool structure, stream bottom, bank cover, bank soil stability and bank vegetative stability. Below are the stream survey parameters collected for the portions of North Fork of Battle Creek and Bartlett Creek, within the Paiute Meadows Allotment (Tables 2 and 3).

Table 2: NDOW Stream Survey results on North Fork Battle Creek.

Parameter	September 1989	September 1992	June 1997	July 2002	July 2008
Pool Measure	51.0	47.2	62.3	69.4	30.0
Pool Structure	19.9	5.6	53.6	24.6	31.9
Stream Bottom	69.0	42.0	47.8	63.0	72.6
Bank Cover	54.0	70.0	82.0	86.1	90.0
Bank Soil Stability	67.8	50.9	68.0	72.8	72.8
Bank Vegetation Stability	59.3	57.8	75.3	78.3	75.0
Habitat Condition Index (HCI)	54.4	45.2	64.8	65.7	61.5
Discharge	0.94 cfs	0.48 cfs	8.02 cfs	2.7 cfs	2.74 cfs
Embeddedness	29.6	65.0	56.5	32.4	45.8
Ungulate Damage	23.2	44.6	0.0	19.7	16.7
Spawning Gravel	50.6	23.8	26.0	48.9	48.9

Stream survey data for North Fork of Battle Creek collected by NDOW mostly indicates static conditions for salmonids within North Fork of Battle Creek.

The North Fork of Battle Creek was assessed in 1998 for riparian functionality. The creek was rated as Functioning at Risk (FAR) with an upward trend.

An Ecological Classification was completed and Jensen (1999) found riparian and stream habitat conditions of both South Fork and North Fork of Battle Creek to be at 59 percent and 61 percent, respectively, of the systems potential. These percentages equated to a "fair" rating for the stream system for these habitat types.

Bartlett Creek is a LCT Recovery stream near the project site, which is currently unoccupied by LCT. Bartlett Creek is approximately 2.1 miles from the project area and currently supports rainbow trout (*Oncorhynchus mykiss*).

Table 3: NDOW Stream Survey results on Bartlett Creek.

Parameter	September 1989	July 1994	October 1998	October 2003	June 2009
Pool Measure	69.3	59.4	60.4	71.7	24.1
Pool Structure	5.7	49.7	33.4	11.2	33.3
Stream Bottom	73.7	65.0	78.9	55.9	85.2
Bank Cover	54.3	72.0	88.6	72.9	71.5
Bank Soil Stability	48.8	68.4	78.6	79.3	67.3
Bank Vegetation Stability	51.3	67.5	78.7	74.7	68.3
Habitat Condition Index (HCI)	56.9	64.5	69.8	61.0	58.3
Discharge	1.04 cfs	0.45 cfs	4.5 cfs	2.35 cfs	3.49 cfs
Embeddedness	48.2	33.8	61.9	30.2	46.4
Ungulate Damage	36.4	0.0	29.2	20.8	16.8
Spawning Gravel	56.3	37.4	44.0	31.3	34.7

Stream survey data for Bartlett Creek collected by NDOW mostly indicates a slight decrease in conditions for salmonids within Bartlett Creek.

Bartlett Creek was assessed in 1998 for riparian functionality. Reach 1 (5.59 miles) of Bartlett Creek was rated as Functioning at Risk (FAR) with a static trend. Reach 2 (5.43 miles) of Bartlett Creek was rated as Proper Functioning Condition (PFC).

An Ecological Classification was completed and Jensen (1999) found riparian and stream habitat conditions of Bartlett Creek to be at 87 percent and 81 percent, respectively, of the systems potential. These percentages equated to a "good" rating for the stream system for these habitat types.

The LCT in North Fork of Battle Creek, along with the fisheries in Bartlett Creek occur miles from the proposed project area and would not be impacted directly by the proposed action. Any indirect impacts that may occur would be inconsequential, therefore LCT are dismissed from further analysis.

Candidate species

The Greater sage-grouse and Whitebark pine are candidates for listing under the Endangered Species Act, which are discussed in Section 3.2.3 Special Status Species.

3.2 Additional Affected Resources

In addition to the supplemental authorities, the following resources (Rangeland Management, Soils, Special Status Species, Vegetation, and Wildlife), which are present and affected by the proposed action and alternative, are described below.

3.2.1 Rangeland Management

Cattle are located within the North Paiute High Elevation pasture between 5/16 and 6/30 of each year. Cattle are moved to the North Paiute Low Elevation pasture by 7/1 and remain there until 10/6. Currently there is no boundary between the North Paiute Low Elevation and North Paiute High Elevation pastures. Cattle can drift at will back to the higher elevation areas after they have been removed from those areas.

3.2.2 Soils

Soils along the Rough Canyon fence line include Rocconda Association, Fulstone gravelly loam and Acrelane-Rock outcrop complex map units as identified by the National Resources Conservation Service (NRCS) Web Soil Survey. These soils occur at elevations between 4,500 and 6500 feet with annual average precipitation between eight and twelve inches (Service). These soils run from very shallow, formed in residuum and colluvium from extrusive igneous rocks (Rocconda Association and Fulstone gravelly loam) to moderately deep, formed in residuum and colluvium from granitic rock sources (Service). Erosion hazard potential rating is low to moderate for water erosion and low for wind erosion. Potential for existence of Biological Soil Crusts is also low to moderate.

3.2.3 Special Status Species

Special Status Species are taxa that are not already included as BLM Special Status Species under (1) Federally listed, proposed, or candidate species: or (2) State of Nevada listed species. BLM policy is to provide these species with the same level of protection as provided for candidate species in BLM Manual 6840.06C, that is to "ensure that actions authorized, funded, or carried out do not contribute to the need for the species to become listed".

An on-the-ground field investigation was conducted for pygmy rabbits (*Brachylagus idahoensis*), see details below. According to the Nevada Natural Heritage Program database (March 2007) and the Nevada Department of Wildlife (NDOW) Diversity data base (March 2007), no endangered, threatened or sensitive plants or animal species have been reported in the immediate project area.

Ferruginous hawk (*Buteo regalis*) – Ferruginous hawks can most likely be found in sagebrush shrublands and where there are occasional juniper trees (Floyd et al. 2007). These birds often forage on small mammals, such as ground squirrels and jackrabbits (Paige & Ritter 1999). Ferruginous hawks are uncommon throughout its range and may be declining due to loss of habitat (Floyd et al. 2007, Alsop 2001).

Swainson's Hawk (*Buteo swainsoni*) –Swainson's hawks can be found in sagebrush shrublands with open sagebrush/bunchgrass vegetation communities (Paige & Ritter 1999, Floyd et al. 2007). Swainson's hawks forage on insects, small mammals, and birds (Paige & Ritter 1999, Aslop 2001, Floyd et al. 2007). The Swainson's hawk was once considered to be "the most common hawk in suitable habitat" (Paige & Ritter 1999). Swainson's hawks are now considered a rare breeder within the Great Basin, which may be due to loss of breeding, foraging, and wintering habitat (Paige & Ritter 1999, Aslop 2001, Floyd et al. 2007).

Brewer's Sparrow (*Spizella breweri*) – Brewer's sparrows are sagebrush specialists with a wide distribution ranging through Utah, eastern California, northern Arizona, southeastern Oregon, southern Idaho, and almost the entire state of Nevada (Floyd et al. 2007). These birds forage on insects in spring and summer, and seeds in the fall and winter (Alsop 2001). This species is undergoing a significant range wide population decline, which is attributed to habitat loss and degradation (Paige & Ritter 1999, Floyd et al. 2007).

Sage Thrasher (*Oreoscoptes montanus*) – Sage Thrashers may be found within the project area because they are associated with intact stands of sagebrush but can also occur in greasewood or bitterbrush dominated shrublands (Floyd et al. 2007). The Sage Thrasher is an insectivore that favors Mormon crickets and their eggs (Paige & Ritter 1999). These birds are declining in Nevada; most likely from habitat fragmentation and degradation (Floyd et al. 2007).

Loggerhead Shrike (*Lanius ludovicianus*) - Loggerhead shrikes may be found in sagebrush/bunchgrass vegetative communities, so it is possible that they may occur along the fence line. These birds would benefit from habitat with a diverse structure and species composition. Healthy sagebrush communities would provide these habitat characteristics. According to Paige and Ritter (1999), "Long–term heavy grazing may ultimately reduce prey habitat and degrade the vegetation structure for nesting and roosting. Light to moderate grazing may provide open foraging habitat".

Western Burrowing Owl (*Athene cunicularia*)- Burrowing Owls are dependent on burrowing mammal populations for maintenance of nest habitat (Paige & Ritter 1999). These birds can be found in open sagebrush areas. Dense stands of grasses and forbs within owl home ranges support populations of rodent and insect prey. It is possible that these birds may be within the project area although no burrows were observed along the proposed fence route.

Greater Sage-grouse (*Centrocercus urophasianus*) – The USFWS decided the protection of the Greater sage-grouse under the Endangered Species Act (ESA) was warranted but precluded by higher listing priorities. The Greater sage-grouse is currently listed as a candidate species. The Greater sage-grouse is a sagebrush obligate species and is strictly associated with sagebrush/grasslands. Greater sage-grouse may eat a variety of grasses, forbs and insects during the breeding season. However, they feed almost entirely on sage-brush during the winter months, selecting shrubs with high protein levels (Paige and Ritter, 1999). Winter habitat management/protection should consist of the following (Connelly et.al., 2000): Maintain sagebrush communities on a landscape scale, allowing sage-grouse access to sagebrush stands with canopy cover of 10-30% and heights of at least 25-35 cm regardless of snow cover.

Summer habitat is generally characterized by relatively moist conditions and many succulent forbs in or adjacent to sagebrush cover. This habitat occurs at the higher elevations and at wet meadows and riparian areas. Nesting habitat management/protection should consist of the following (Connelly et.al., 2000): Support 15-25% canopy cover of sagebrush, perennial herbaceous cover averaging $\geq$ 18 cm in heights with $\geq$ 15% canopy cover for grasses and $\geq$ 10% for forbs and a diversity of forbs.

The proposed fence would be built within the Black Rock PMU in an area that provides year-round habitat for Greater sage-grouse. The proposed fence line falls within Preliminary Priority Habitat (PPH) for Greater sage-grouse. PPH are areas offering the highest quality Greater sage-grouse habitat based on bird density, lek location, community composition, intactness or other variables. The proposed fence line falls over a half mile from and less than one mile to the nearest lek.

Pygmy Rabbit (*Brachylagus idahoensis*) - The pygmy rabbit has been designated a BLM Special Status Species. In the great basin it is typically restricted to the sagebrush-grass complex. A dietary study of pygmy rabbits showed that they were dependent on sagebrush year round and pygmy rabbits have a preference for grasses and to lesser extent forbs, in the summer (Green and Flinders, 1980). Although there was no formal inventory for pygmy rabbits conducted, a site visit on December 13, 2012 showed that there was no potential habitat for pygmy rabbits in the project area. For these reasons, proposed activities are judged to have no impact on this species or its habitats and will be dismissed from further analysis.

Bighorn Sheep (*Ovis Canadensis*) – The project area contains year round Bighorn sheep habitat. Bighorn sheep typically reside in mountainous habitat areas. Topography is the primary source of cover for bighorns, and steep broken escarpments (60% plus slope) or rock outcrops at least five acres in size with accessible terraces is optimum. Grasses have high importance in bighorn sheep diets, but forbs and shrubs are also important. Desirable bighorn habitat consists of sagebrush/bunchgrass communities, wet meadows, and riparian areas adjacent to rock outcrops and rimrock.

Bats – There are a few caves approximately 2.5 miles away that may provide suitable habitat for several bat species such as Pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), western small footed myotis (*Myotis ciliolabrum*), and little brown myotis (*Myotis lucifugus*).

Whitebark pine (*Pinus albicaulis*) –A site visit on December 13, 2012 showed that there were no Whitebark pine in the project area. The closest population of Whitebark pine from the project area is located 15 miles SW within the Pahute Peak Wilderness Area. For these reasons, proposed activities are judged to have no impact on this species and will be dismissed from further analysis.

3.2.4 Vegetation

The allotment supports vegetation typical at these elevations for the north and central Great Basin. Dominant species of these ecological sites are little sagebrush (Artemisia arbuscula), Wyoming big sagebrush (Artemisia tridentate wyomingensis), Thurber's needlegrass (Achnatherum thurberianum), squirreltail (Elymus elymoides), and bluebunch wheatgrass (Pseudoroegneria spicata) (Service). Other perennial forbs and grasses can be expected as a small percentage of total perennial plant composition. These species could include ephedra (Ephedra sp.), Indian ricegrass (Achnatherum hymenoides), Sandberg bluegrass (Poa secunda), shadscale (Atriplex confertifolia), spiny hopsage (Grayia spinosa), Taper tip hawksbeard (Crepis acuminata), and Hooker's balsamroot (Balsamorhiza hookeri) (Service). Cheatgrass (Bromus tectorum) is present in the understory in the vicinity of the proposed fence line.

3.2.5 Wildlife

The project area provides habitat for species common to the Great Basin. Some of the large mammal species include mule deer (*Odocoileus hemionus*), pronghorn antelope (*Antilocapra americana*), mountain lion (*Felis concolor)*, bobcat (*Lynx rufus)*, black-tailed jackrabbit (*Lepus californicus*), coyote (*Canis latrans*), and badger (*Taxidea taxus*). Some of the small mammal species include Ord kangaroo rat (*Dipodomys ordii monoensis*), Chisel-toothed kangaroo rat (*Dipodomys microps*), White-tailed antelope squirrel (*Ammospermophilus leucurus*) and various other rodents. Various snakes, lizards, and other reptiles are also present. The proposed fence line is located within summer pronghorn antelope habitat and within crucial winter mule deer habitat.

4.0 ENVIRONMENTAL CONSEQUENCES

This section of the EA presents an analysis of the direct and indirect impacts of the Proposed Action and Alternatives on natural and cultural resources within the project area.

4.1 Proposed Action and Alternatives

4.1.1 Cultural Resources

Proposed Action
The Proposed Action would have no effect on significant cultural resources.

No Action Alternative

The No Action Alternative would create no impacts to cultural resources.

4.1.2 Invasive, Nonnative Species

Proposed Action
The proposed action, which would include full implementation of the proposed environmental protection measures, would not encourage the spread and establishment of noxious weeds as a result of the construction disturbance. Increased cattle traffic along the fence line may increase long-term opportunity for establishment of noxious weed infestations adjacent to the proposed fence.

No Action Alternative
The No Action Alternative would create no impacts to invasive, nonnative species of any consequence.

4.1.3 Migratory Birds

Proposed Action
Constructing the proposed fence would prohibit livestock from entering upper elevation areas during the hot season. Under this alternative the breeding and foraging habitat for migratory birds and raptors would be allowed the rest from livestock use that it is designed to have during the hot season.

It is improbable the proposed fence would pose a collision risk to migratory birds, however flight diverters placed on the wires for greater sage-grouse mitigation would also benefit migratory birds. Many birds use fences as perches and these could provide some diversity of structure in their habitat.

No Action Alternative
The riparian meadow areas may be grazed by cattle (outside of specified timeframes) returning to higher elevation areas, which would decrease the amount of breeding and foraging habitat for migratory birds within the upper elevation areas.

4.1.4 Native American Religious Concerns

Consultation meetings were held with the Fort McDermitt Paiute and Shoshone Tribe (FMPST) and the Summit Lake Paiute Tribe (SLPT) on July 16th 2012 and June 16th 2012 respectively. No sacred sites or traditional cultural properties (TCPs) were identified by either tribe in the project area. FMPST was supportive of the project since they felt it would protect Lahontan cut-throat trout. SLPT provided a written response dated August 7, 2012 and felt the project would help protect the lake's watershed.

Proposed Action
No sacred sites or traditional cultural properties (TCPs) were identified in the project area. The fence alignment would avoid any NRHP eligible cultural sites (often considered as sacred by the Northern Paiute. The SLPT is supportive of the project since they feel it would help protect the watershed of Summit Lake, and they believe it would help protect Lahontan cut-throat trout as well.

No Action Alternative
The No Action Alternative would preserve the status quo. The Tribes feel that this alternative would have the potential to impact Lahontan cut-throat trout watersheds, which are a resource important to many bands of Northern Paiutes. The SLPT believes the current situation impacts the watershed of Summit Lake.

4.1.5 Rangeland Management

Proposed Action
The proposed fence would prohibit cattle movement from the low elevation pastures back up to the high elevation pastures during the hot season. Under this alternative upland, riparian, and meadows would be allowed the rest from livestock use that it is designed to have, contributing to healthier rangeland ecosystems within upper elevation areas.

No Action Alternative
Impacts to upland, riparian, and meadow areas would continue during the hot season as there is no boundary denying access for livestock between the low elevation and high elevation pastures.

4.1.6 Soils

Proposed Action
Direct impacts from the construction of this fence would be slight. Indirect impacts from trailing livestock would be from formation of trails that could concentrate runoff, increase compaction when soils are wet, and increase dust when soils are dry. The majority of the fence would be located on soil with a low wind erosion hazard and medium water erosion hazard.

Under this alternative upland, riparian, and meadow soils would be allowed the rest from livestock use that they are designed to have during the hot season.

No Action Alternative
No direct impacts would take place however, indirect impacts to riparian and wet meadow soils would continue due to domestic livestock concentration on these areas during 'hot season' gazing.

4.1.7 Special Status Species

Proposed Action
Constructing the proposed fence would prohibit livestock from entering upper elevation areas during the hot season. Under this alternative the nesting, breeding, and foraging habitats for the special status species discussed below would be allowed the rest from livestock use that it is designed to have during the hot season.

Ferruginous hawk, Swainson's hawk, Brewer's sparrow, Sage thrasher, Loggerhead shrike, Western burrowing owl – Constructing the proposed fence could temporarily displace birds. It is improbable the proposed fence would pose a collision risk, however flight diverters placed on the wires for greater sage-grouse would also benefit special status birds. Many birds use fences as perches and these could provide some diversity of structure in their habitat.

Sage-grouse - The proposed fence would be installed within Preliminary Priority Habitat (PPH) for greater sage-grouse. PPH are areas offering the highest quality greater sage-grouse habitat based on bird density, lek location, community composition, intactness or other variables.

Due to their slow, low-flying nature, sage-grouse frequently collide with wire fences. The proposed fence would have flight diverters to reduce collisions with greater sage-grouse. Greater sage-grouse could be temporarily displaced during fence construction.

Bighorn Sheep – The proposed fence is located within year round Bighorn sheep habitat. The proposed fence may restrict Bighorn sheep movement; however, it is anticipated that this would not be an issue as the fence is located in an area that has low densities of bighorn sheep. Constructing the proposed fence could temporarily displace Bighorn sheep in the immediate area.

Bats –Constructing the proposed fence would most likely not displace the bats during the daytime and the location of the fence should not pose a collision risk, but the flight diverters installed for greater sage-grouse would also help prevent any strikes.

No Action Alternative
Under the No Action Alternative livestock would continue to enter the upper elevation areas during the hot season which could lead to excess grazing in upland, riparian, and meadow habitats. Potential excess grazing could decrease the quality of habitat for Greater sage-grouse, other special status species, and bats.

4.1.8 Vegetation

Proposed Action
The proposed fence would prohibit cattle movement from the low elevation pastures back up to the high elevation pastures during the hot season. Under this alternative upland, riparian, and meadow vegetation would be allowed the rest from livestock use that it is designed to have.

Construction of the proposed fence would result in the compression of vegetation along the fence line. Although mature shrubs may be crushed or removed during construction, the majority would recover, along with understory grasses and forbs following completion of construction.

No Action Alternative
No direct impacts would take place however, indirect impacts to vegetation would continue due to domestic livestock concentration on these areas during 'hot season' gazing.

4.1.9 Wildlife

Proposed Action
Constructing the proposed fence would prohibit livestock from entering upper elevation areas during the hot season. Under this alternative wildlife habitat would be allowed the rest from livestock use that it is designed to have during the hot season.

The proposed fence is located within crucial winter habitat for mule deer and summer habitat for pronghorn antelope. The fence would be built outside of the crucial winter time period for mule deer (November 15 through April 30), reducing disturbance to mule deer. The proposed fence

could restrict mule deer and pronghorn antelope movement. The opportunity for this would be lessened because the proposed fence would be constructed to BLMs antelope specifications which are designed to prevent potential impacts to ungulates. Constructing the proposed fence would temporarily displace localized wildlife.

No Action Alternative
Under the No Action Alternative livestock would continue to enter the upper elevation areas during the hot season which could lead to excess grazing in upland, riparian, and meadow habitats. Potential excess grazing could decrease the quality of foraging habitat for mule deer and pronghorn antelope within the upper elevation areas.

5.0 CUMULATIVE IMPACTS

The Council on Environmental Quality (CEQ) regulations that implement NEPA defines a cumulative impact as: "The impact on the environment which results from the incremental impact of the action when added to other past, present, or reasonably foreseeable future actions." Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7).

5.1 Past and Present Actions

On the basis of aerial photographic data, agency records and GIS analysis and interdisciplinary team discussion the following past and present actions, have been identified:

Livestock Grazing – Livestock grazing has a long history in the region dating back to the late 1800's. Today, it remains the dominant use of the cumulative impact assessment area.
Throughout its history, ranching has remained a dispersed activity characterized by localized areas of more intensive use. It is anticipated that grazing would remain at current levels with few changes in stocking numbers.

In order to support the management of these allotments, a variety of range improvement projects have been implemented through the years. These improvements include fences, cattleguards, wells, spring developments, reservoirs, water pipelines, and corrals.

Recreational Activities − Dispersed recreation occurs within the assessment area and includes, wildlife viewing, hunting, off-highway vehicle use and camping. Occasional land sailing occurs on Jungo Flats.

Recreational use is expected to increase at a rate of five percent per year as a result of population growth in the areas that surround the assessment area. Some activities such as hunting and off-road vehicle use will likely continue and/or increase over time (Winnemucca RMP AMS, 2005).

5.2 Reasonably Foreseeable Future Actions

Past and present actions discussed above are expected to continue into the foreseeable future, though the relative intensity of these actions could vary depending on a variety of economic and other factors.

5.3 Cumulative Impact

Impacts associated with past, present, and reasonably foreseeable future actions are generally created by ground or vegetation-disturbing activities that effect natural and cultural resources in various ways. Of particular concern is the accumulation of these impacts over time. This section of the EA considers the nature of the cumulative effect and analyzes the degree to which the proposed action and alternatives contribute to the collective impact.

A thorough evaluation of the past, present and reasonable foreseeable actions within the assessment area, in relation to the proposed action and no action, has been conducted and the result is that no discernible cumulative impacts are expected to any of the affected resources under any of the alternatives associated with implementation of the Rough Canyon Fence.

6.0 MONITORING AND MITIGATION MEASURES

Appropriate mitigation measures have been proposed in the Proposed Action and no additional mitigation is proposed based on the results of the impact analyses.

The BLM would be responsible for construction and any monitoring during construction of the proposed fence. The permittee would assume maintenance of the improvement under the Proposed Action.

7.0 LIST OF PREPARERS

The following staff participated in the writing and review of this EA:

Angie Arbonies	Project Lead, Rangeland Management
Kathryn Ataman	Cultural Resources
Eric Baxter	Invasive and Non Native Species
Robert Burton	Soils and Vegetation
Mark Hall	Native American Consultation
Greg Lynch	T&E Species
Lynn Ricci	Planning and Environmental Coordinator
Kathy Cadigan	T&E Species, Special Status Species, Migratory Birds and Wildlife
Kristine Struck	Lands With Wilderness Characteristics

8.0 CONSULTATION AND COORDINATION

Agency Coordination
Nevada Department of Wildlife
U.S. Fish and Wildlife Service

A species list was requested from the United States Fish and Wildlife Service for the proposed project area, per their online version (2-05-13; http://ecos.fws.gov/ipac/). The Nevada USFWS responded on February 5, 2013 with an electronic version of an official species list.

Native American Consultation
A consultation letter was sent to the following Tribes on May 17, 2012:
Fort McDermitt Paiute and Shoshone Tribe
Summit Lake Paiute Tribe

The proposed project was discussed at Summit Lake and Ft. McDermitt during council meetings on June 16th, 2012, and July 16th, 2012 respectively.

9.0 PUBLIC INVOLVEMENT

The Paiute Meadows interested public list will be sent a letter via U.S. Mail informing them that this document is available for review.

10.0 REFERENCES

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Bureau of Land Management GIS Data
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2013 BLM Watershed GIS Layer.
2013 Nevada Department of Wildlife Bighorn Habitat, GIS Layer.
2013 Nevada Department of Wildlife Mule Deer Habitat, GIS Layer.
2013 Nevada Department of Wildlife Pronghorn, GIS Layer.
2013 Nevada Department of Wildlife Raptor Nest Sites, GIS Layer.
2013 Nevada Department of Wildlife Sage Grouse Habitat, GIS Layer.
2013 Nevada Department of Wildlife Sage Grouse Leks, GIS Layer.
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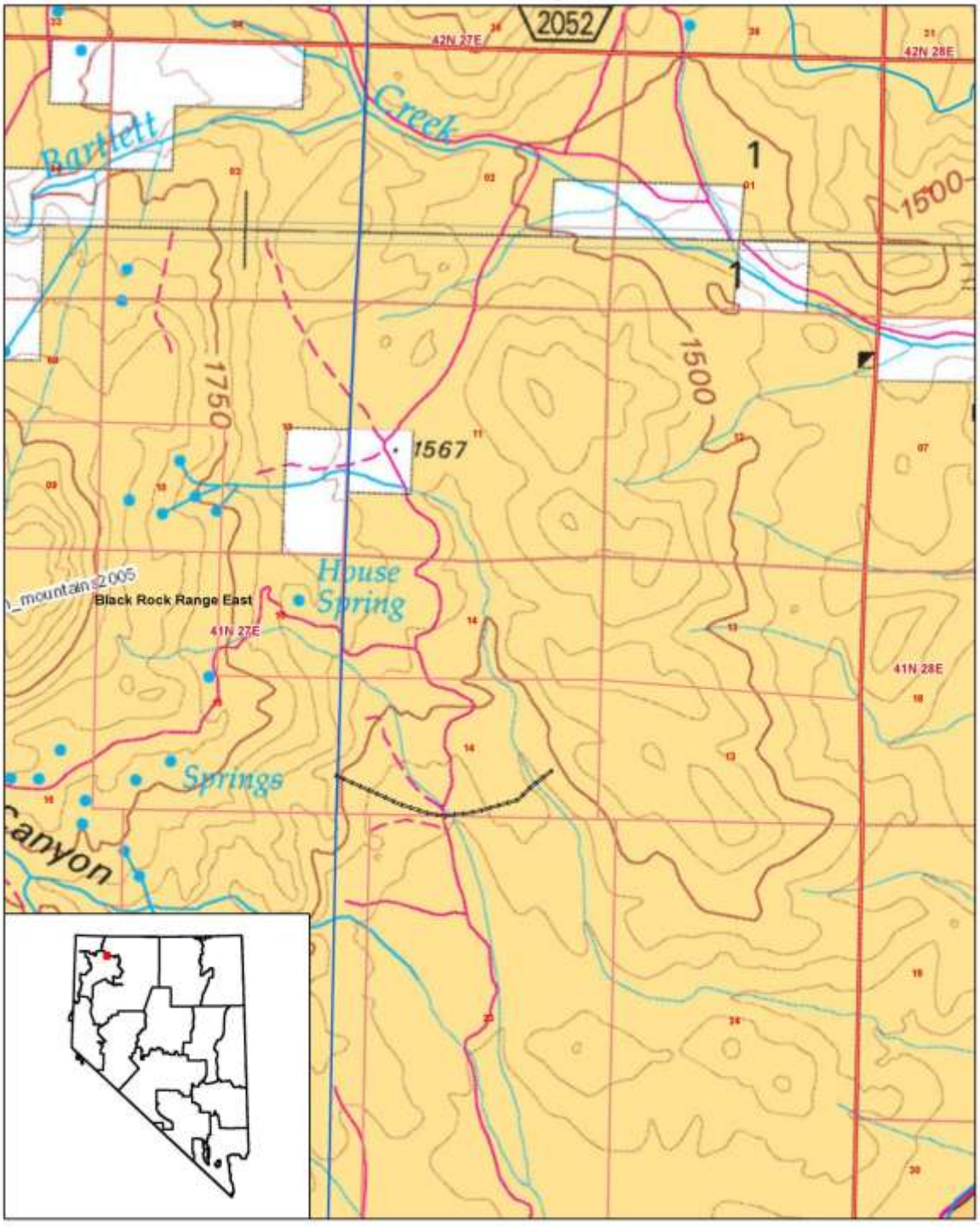
11.0 MAPS

Map 1: Proposed Project Location



N

0 0.25 0.5 1 Miles

No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.

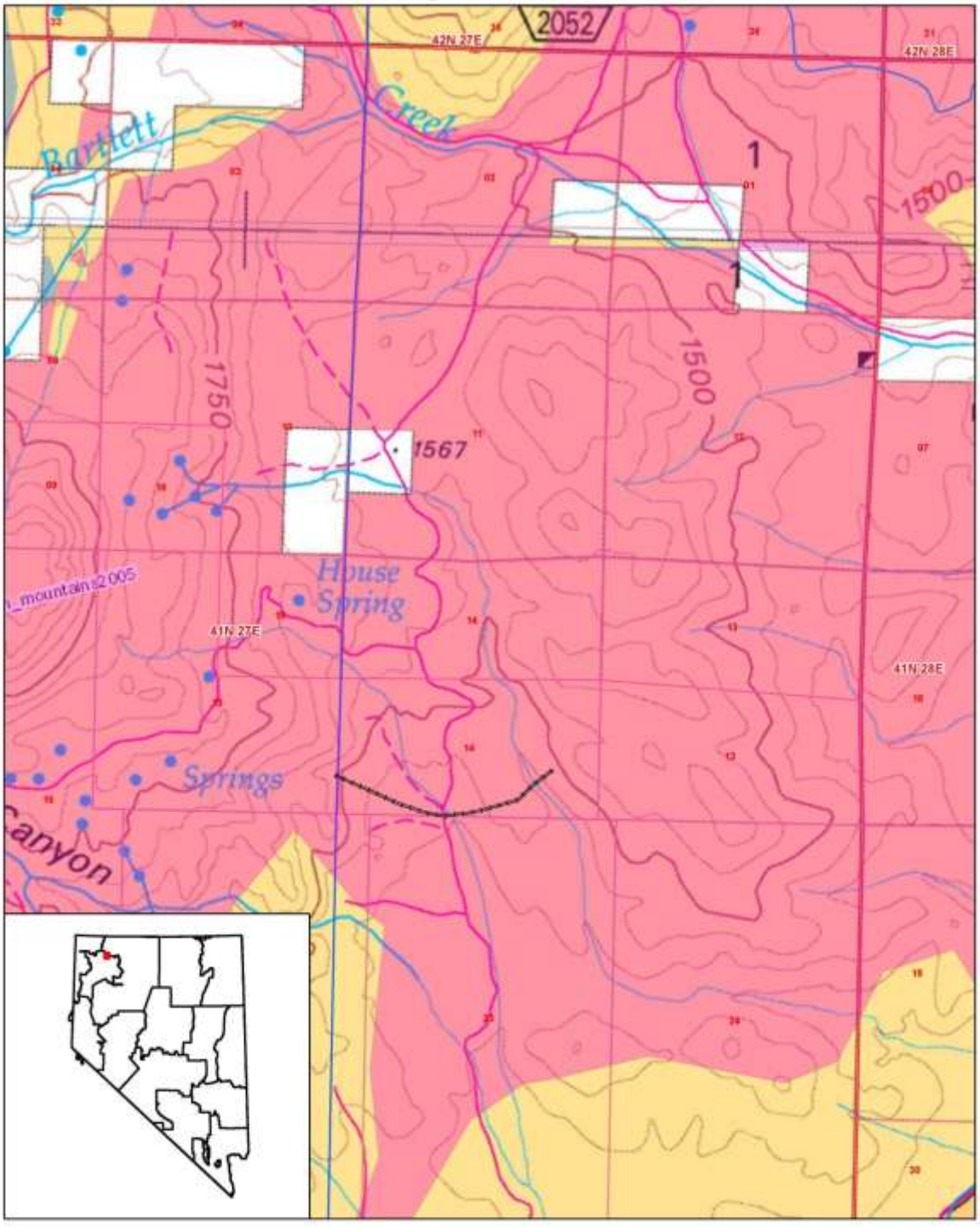
Black Rock Field Office
Winnemucca District Office
July 9, 2013

Legend

Proposed Fence Location

Wild Horse Herd Management Area

Map 2: Sage-Grouse Habitat



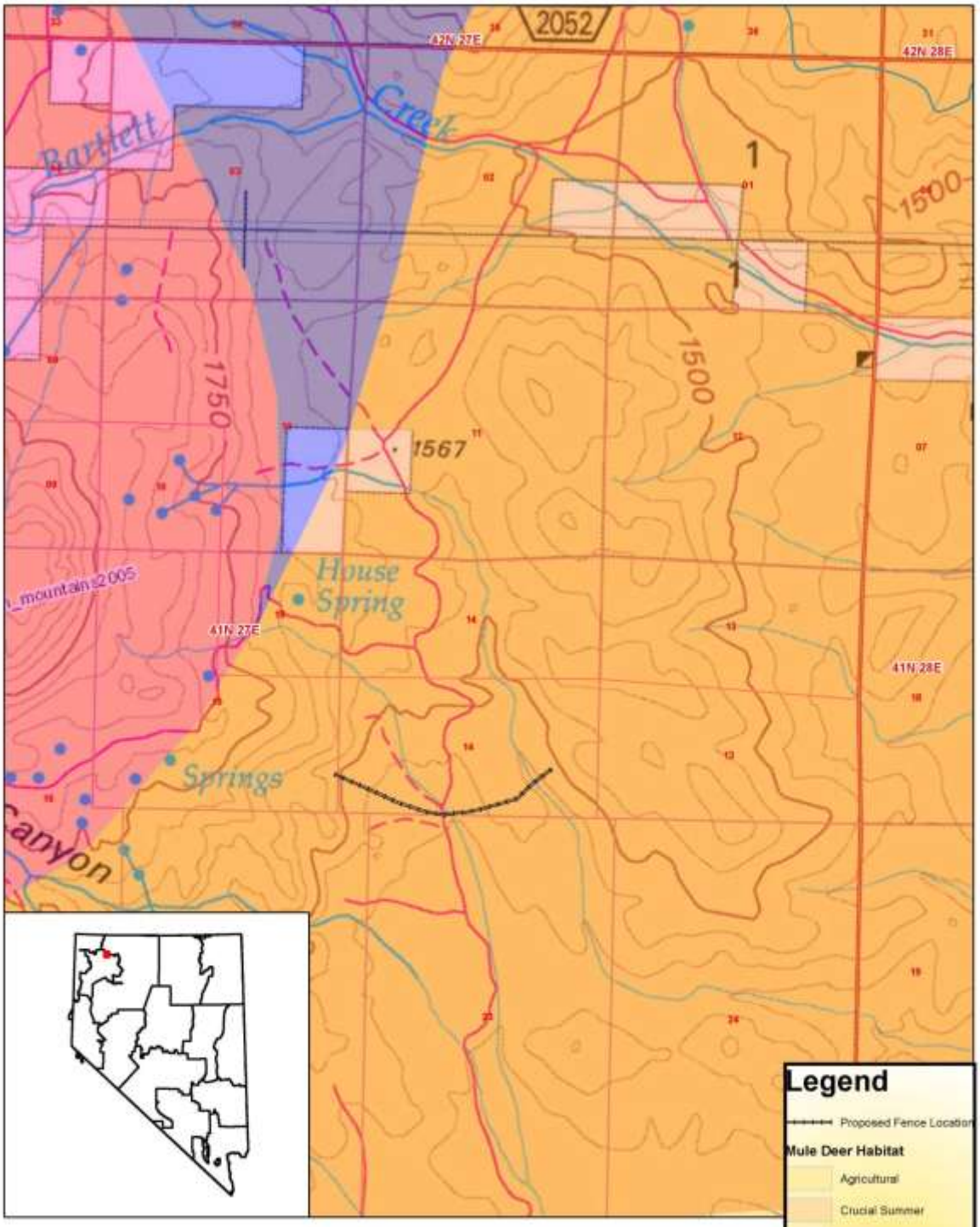
No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.

Black Rock Field Office
Winnemucca District Office
July 9, 2013

Legend

- Proposed Fence Location
- Sage-grouse Preliminary General Habitat
- Sage-grouse Preliminary Priority Habitat
- Herd Management Area (HMA) Polygons

Map 3: Mule Deer Habitat



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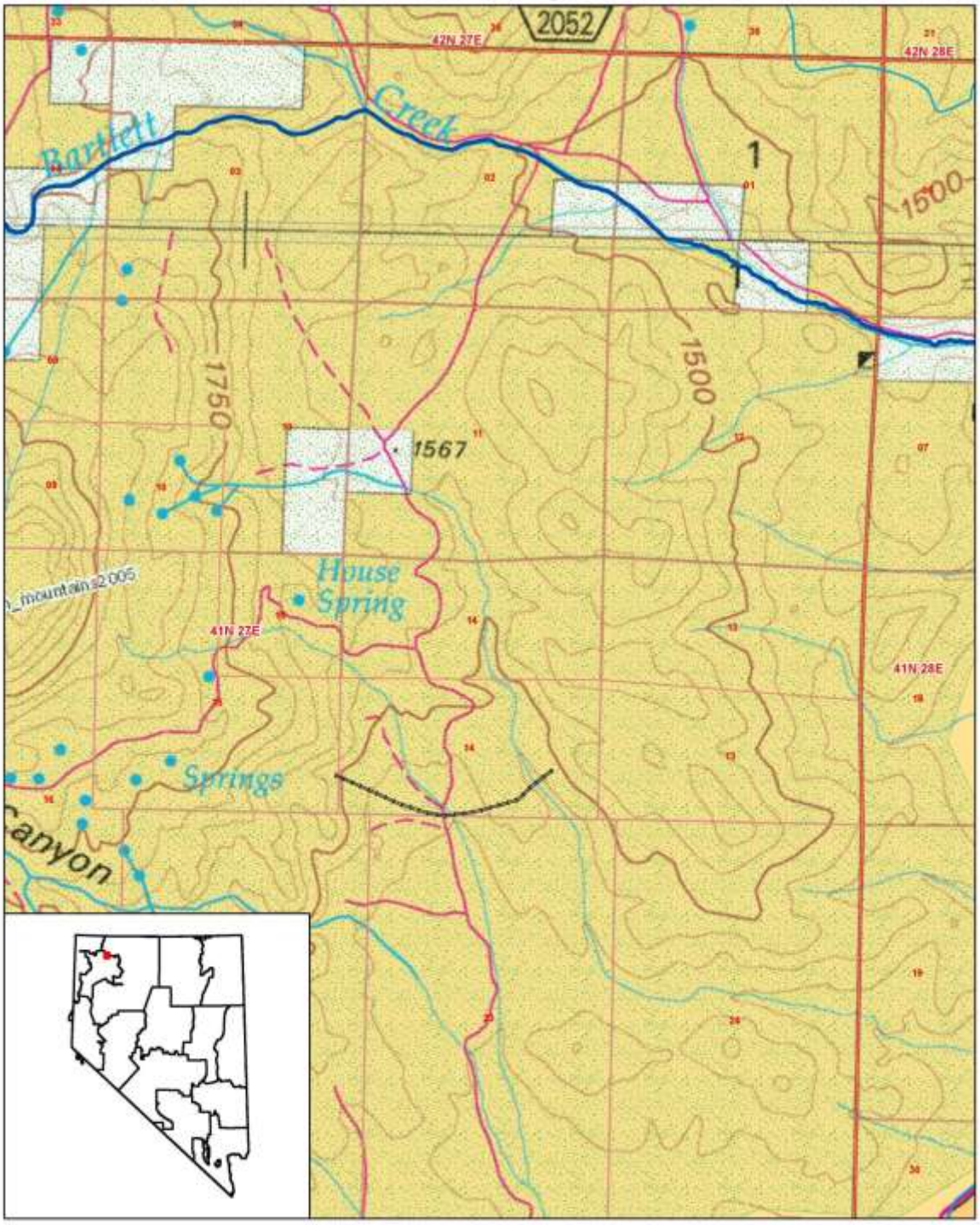
No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.

Black Rock Field Office
Winnemucca District Office
July 9, 2013

Map 4: LCT Streams and Bighorn Sheep Habitat



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0 0.25 0.5 1 Miles

No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.

Black Rock Field Office
Winnemucca District Office
July 9, 2013

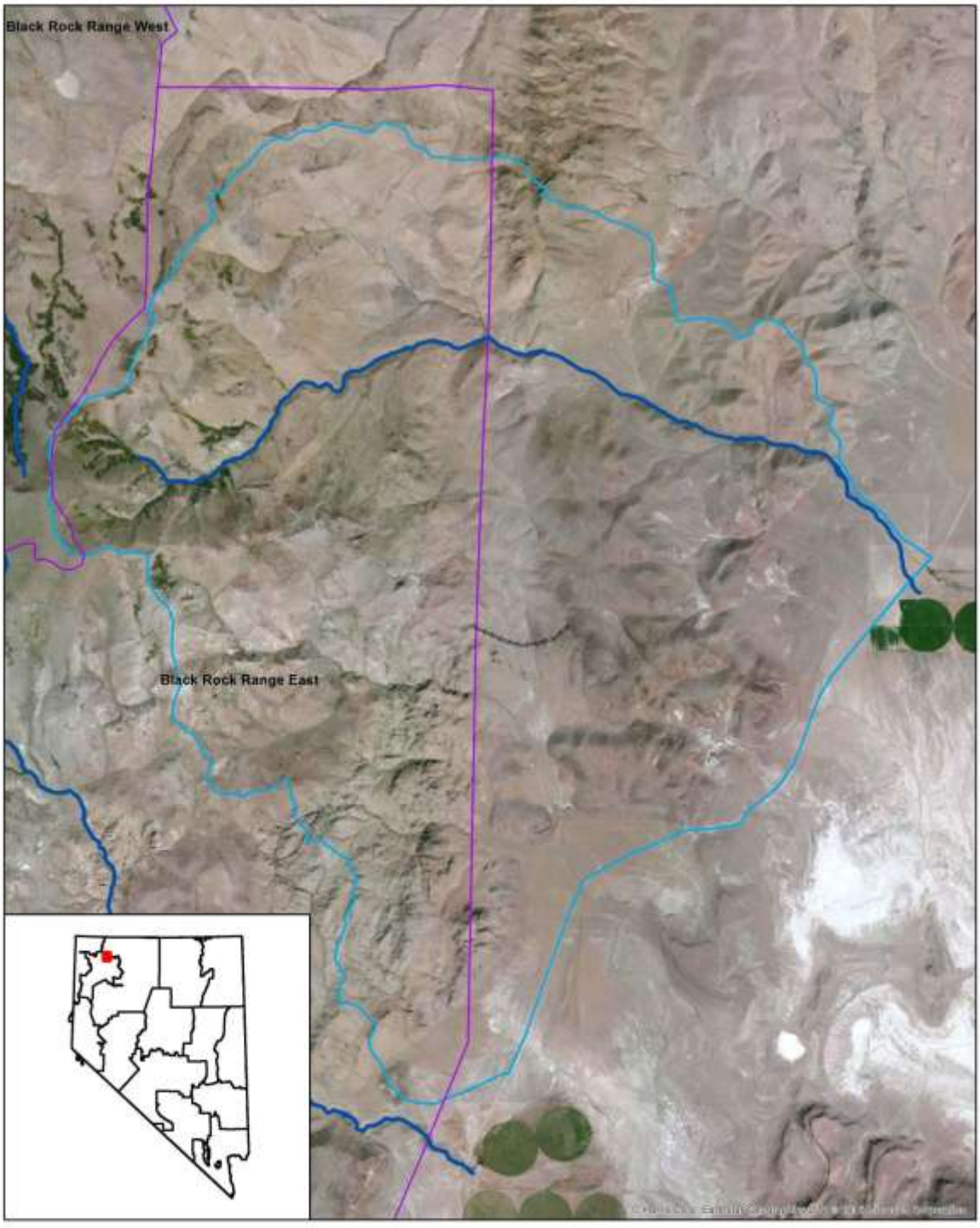
Legend

- Proposed Fence Location
- LCT Streams

Bighorn Sheep Habitat

- Year-round

Map 5: Cumulative Impact Assessment Area



N

0 0.5 1 2 Miles

No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.

Black Rock Field Office
Winnemucca District Office
July 9, 2013

Legend

- Proposed Fence Location
- LCT Streams
- Wild Horse Herd Management Area
- Cumulative Assessment Area

12.0 APPENDICIES

Appendix I: Noxious Weed List

Nevada Administrative Code
(effective 10-31-05)

555.10 1. The following weeds are designated noxious weeds:

DEFINITIONS

Category ”A”: Weeds not found or limited in distribution throughout the state; actively excluded from the state and actively eradicated wherever found; actively eradicated from nursery stock dealer premises; control required by the state in all infestations

Category "B": Weeds established in scattered populations in some counties of the state; actively excluded where possible, actively eradicated from nursery stock dealer premises; control required by the state in areas where populations are not well established or previously unknown to occur

Category "C": Weeds currently established and generally widespread in many counties of the state; actively eradicated from nursery stock dealer premises; abatement at the discretion of the state quarantine officer

Common Name	**Scientific Name**
Category A Weeds:	
African Rue	*Peganum harmala*
Austrian fieldcress	*Rorippa austriaca*
Austrian peaweed	*Sphaerophysa salsula / Swainsona salsula*
Camelthorn	*Alhagi camelorum*
Common crupina	*Crupina vulgaris*
Dalmation Toadflax	*Linaria dalmatica*
Dyer’s woad	*Isatis tinctoria*
Eurasian water-milfoil	*Myriophyllum spicatum*
Giant Reed	*Arundo donax*
Giant Salvinia	*Salvinia molesta*
Goats rue	*Galega officinalis*
Houndstongue	*Cynoglossum officinale*
Hydrilla	*Hydrilla verticillata*
Iberian Star thistle	*Centaurea iberica*
Klamath weed	*Hypericum perforatum*
Leafy spurge	*Euphorbia esula*
Malta Star thistle	*Centaurea melitensis*
Mayweed chamomile	*Anthemis cotula*
Mediterranean sage	*Salvia aethiopis*
Purple loosestrife	*Lythrum salicaria, L.virgatum* and their cultivars
Purple Star thistle	*Centaurea calcitrapa*
Rush skeletonweed	*Chondrilla juncea*
Sow Thistle	*Sonchus arvensis*

Spotted Knapweed	*Centaurea masculosa*
Squarrose star thistle	*Centaurea virgata* Lam. Var. *squarrose*
Sulfur cinquefoil	*Potentilla recta*
Syrian Bean Caper	*Zygophyllum fabago*
Yellow Starthistle	*Centaurea solstiltialis*
Yellow Toadflax	*Linaria vulgaris*

Category B Weeds:

Carolina Horse-nettle	*Solanum carolinense*
Diffuse Knapweed	*Centaurea diffusa*
Medusahead	*Taeniatherum caput-medusae*
Musk Thistle	*Carduus nutans*
Russian Knapweed	*Acroptilon repens*
Sahara Mustard	*Brassica tournefortii*
Scotch Thistle	*Onopordum acanthium*
White Horse-nettle	*Solanum elaeagnifolium*

Category C Weeds:

Black henbane	*Hyoscyamus niger*
Canada Thistle	*Cirsium arvense*
Green Fountain grass	*Pennisetum setaceum*
Hoary cress	*Cardaria draba*
Johnson grass	*Sorghum halepense*
Perennial pepperweed	*Lepidium latifolium*
Poison Hemlock	*Conium maculatum*
Puncture vine	*Tribulus terrestris*
Salt cedar (tamarisk)	*Tamarix spp*
Water Hemlock	*Cicuta maculata*